

Step	Procedure
210	Acquire intensity vs. position data during an optical-path length scan of the interferometer
220	Transform into the frequency domain and use a least-squares fit to phase vs. wavenumber to generate experimental coherence and phase data.
230	Approximate the phase gap with a low-noise substitute, generated e.g. by field averaging.
240	Connect the approximate phase gap to remove 2π wrapping between pixels
250	Calculate a field-corrected phase free of pixel-to-pixel fringe order errors, by combining phase and coherence information
260	Calculate an absolute phase incorporating all known phase and dispersion offsets.
270	Calculate a final high-resolution height profile from the absolute phase.

Figure 1

200

Step	Symbol	Procedure name	Ref.
210	a $I_{ex}(\zeta, x)$	Experimental intensity vs. scan position data	Figure 4
220	a $\phi_{ex}(k, x)$	Experimental phase vs. wavenumber data	Eq. (3)
	b $a_{ex}(k, x)$	Phase slope (by linear fit)	Eq. (4)
	c $b''_{ex}(k, x)$	Phase intercept (by linear fit)	Eq. (5)
	d $\Theta_{ex}(x)$	Phase-equivalent coherence profile	Eq. (6)
	e $\theta''_{ex}(x)$	Wrapped experimental phase profile at k_0	Eq. (7)
230	a $\Theta_{sm}(x)$	Smoothed coherence profile	Eq. (32)
	b $\Gamma''(x)$	Approximate phase gap	Eq. (33)
	c $\langle \Gamma' \rangle$	Global average phase gap	Eq. (27)
	d $\Gamma''_{sm}(x)$	Filtered phase gap	Eq. (29)
	e $V(x)$	Phase gap variance	Eq. (35)
	f $V_{sm}(x)$	Smoothed phase gap variance	Eq. (36)
	g $\Gamma''_{blend}(x)$	Wrapped blended phase gap	Eq. (37)
240	a $\Gamma'(x)$	Connected phase gap	Eq. (18)
	b $\Gamma'_{fit}(x)$	Surface fit to the connected phase gap	Eq. (34)
	c $\Gamma'_{blend}(x)$	Blended connected phase gap	Eq. (38)
250	a $M(x)$	Field dependence of fringe order	Eq. (20)
	b $\theta'_{ex}(x)$	Field-corrected phase profile	Eq. (21)
260	a M_0	Absolute fringe order	Eq. (24)
	b $\theta_{ex}(x)$	Absolute phase profile	Eq. (25)
270	a $h_{ex}(x)$	Absolute height profile	Eq. (26)

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Figure 2

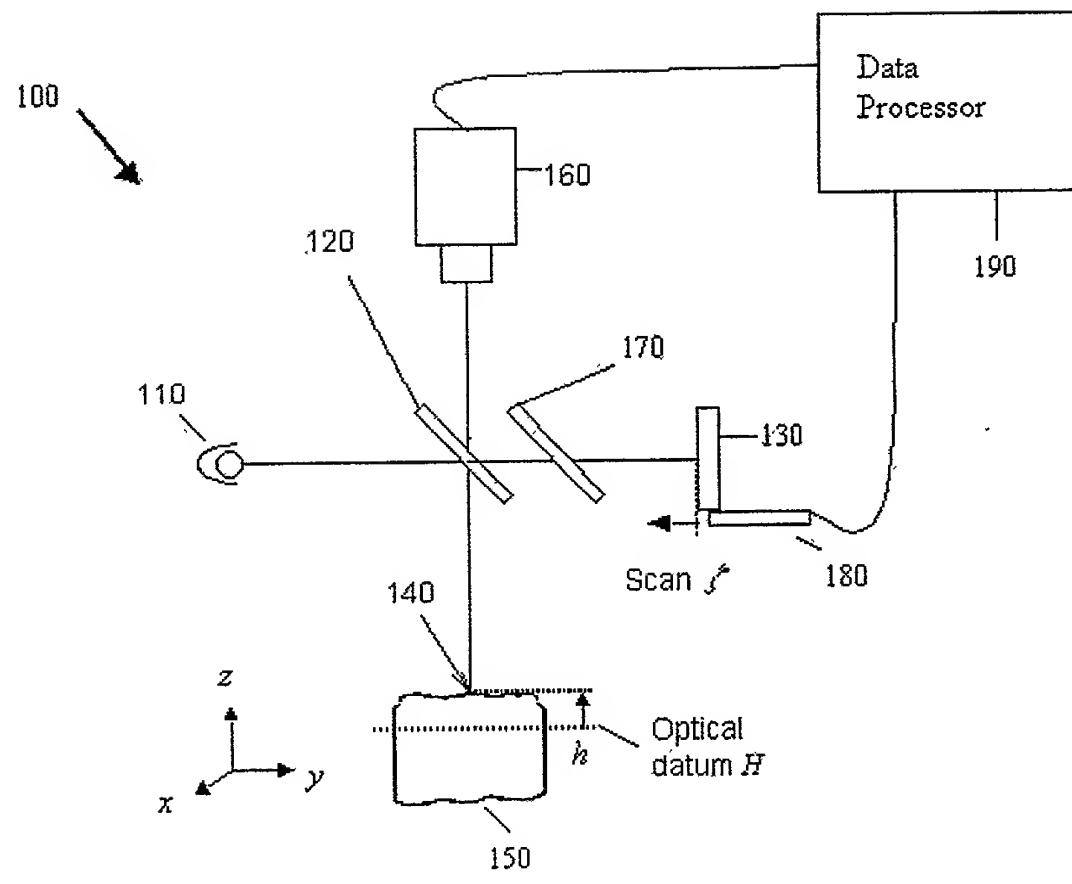


Figure 3

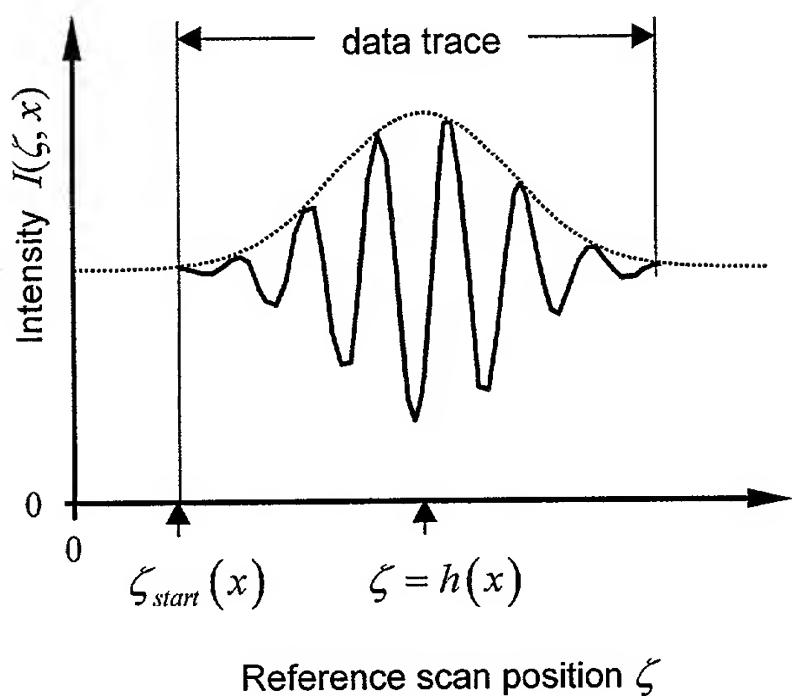


Figure 4

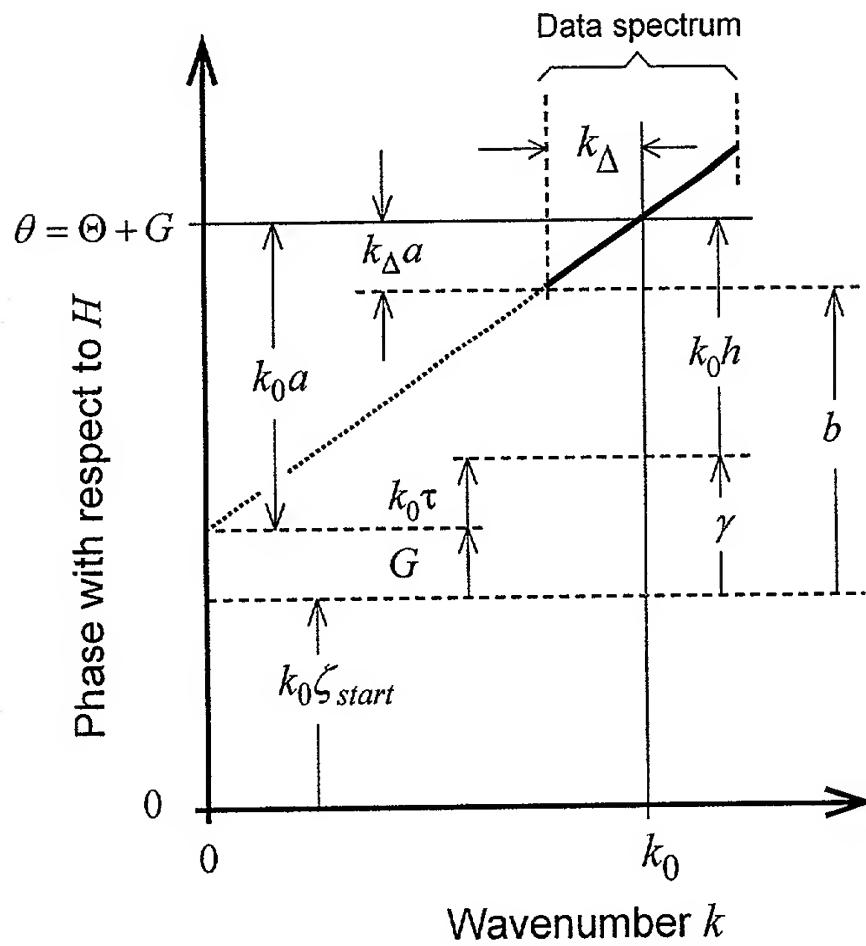


Figure 5

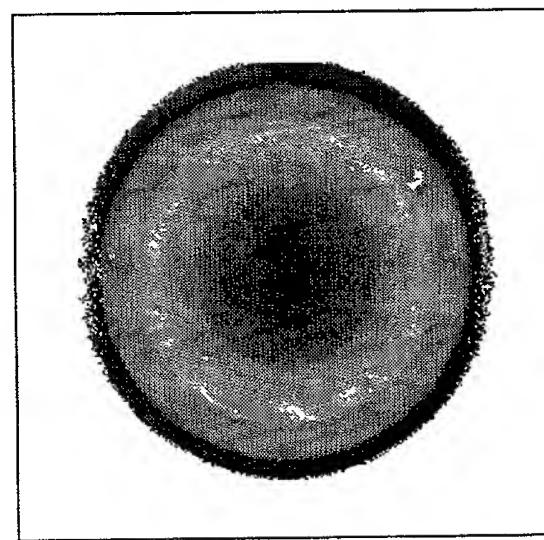


Figure 6

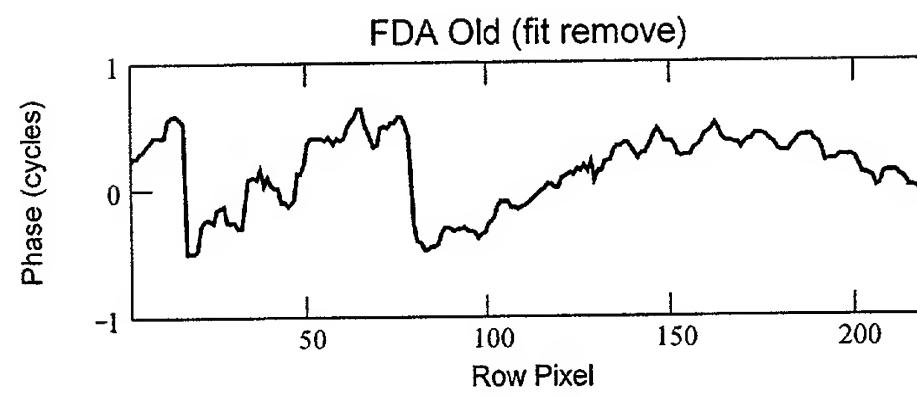


Figure 7

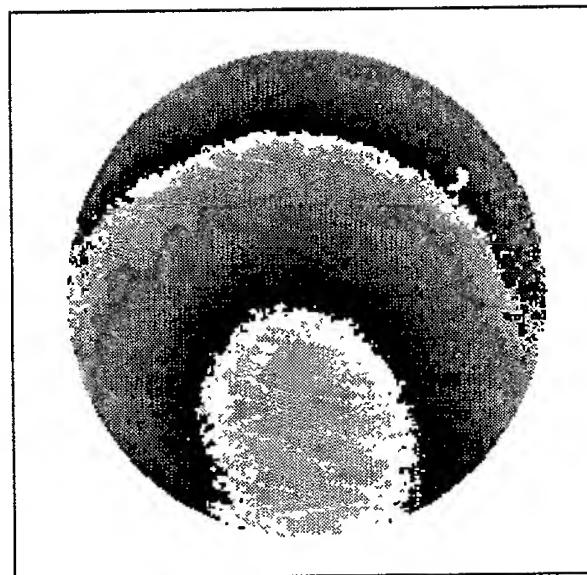


Figure 8

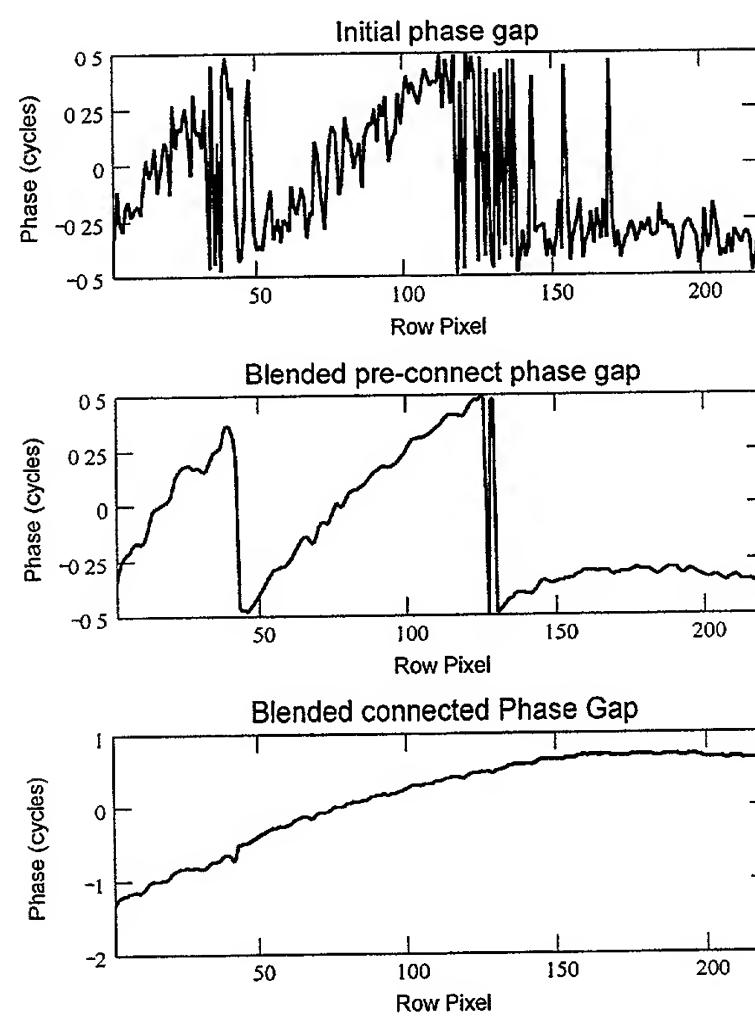


Figure 9

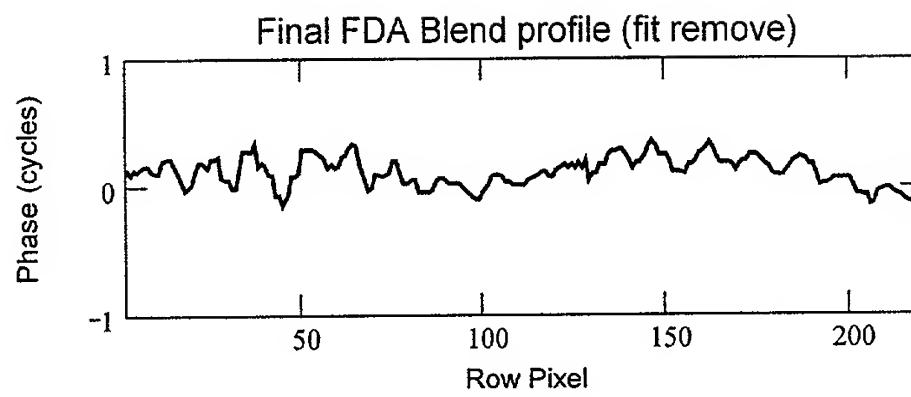


Figure 10

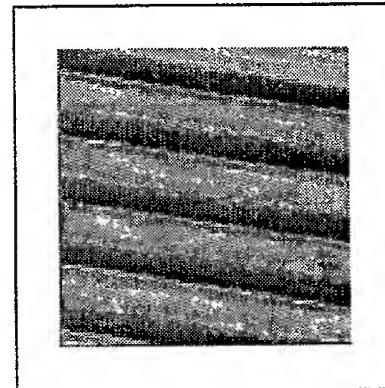


Figure 11

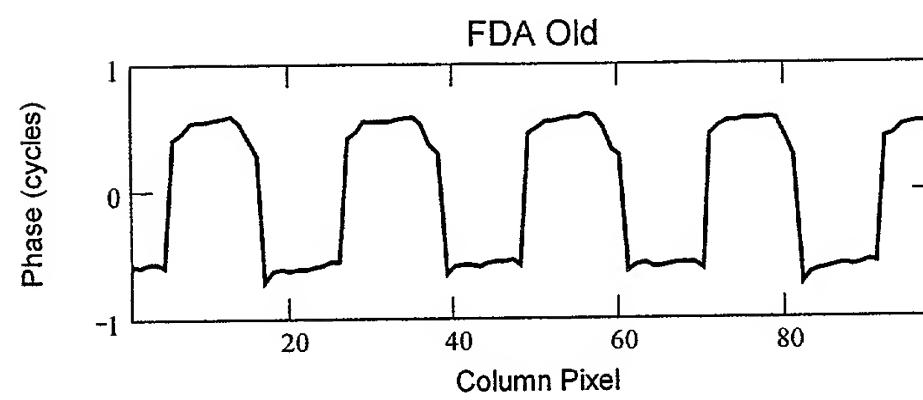


Figure 12

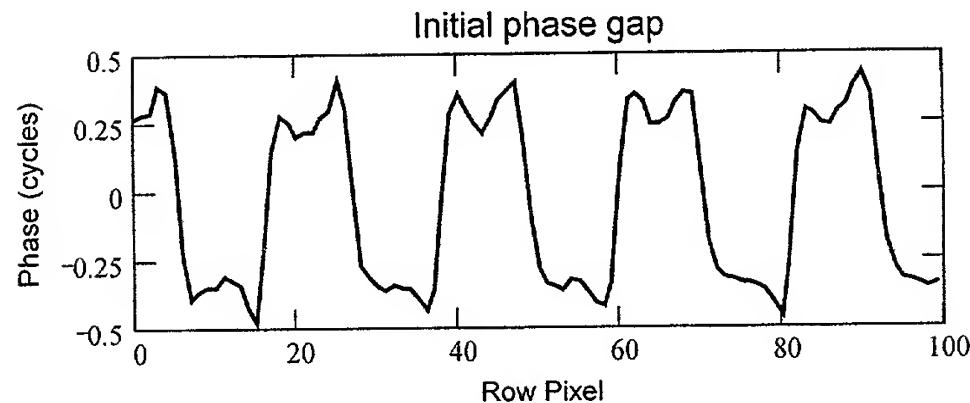


Figure 13

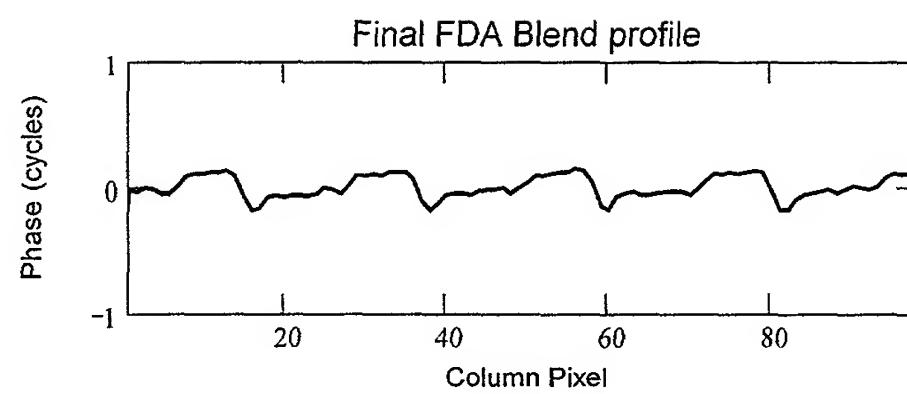


Figure 14

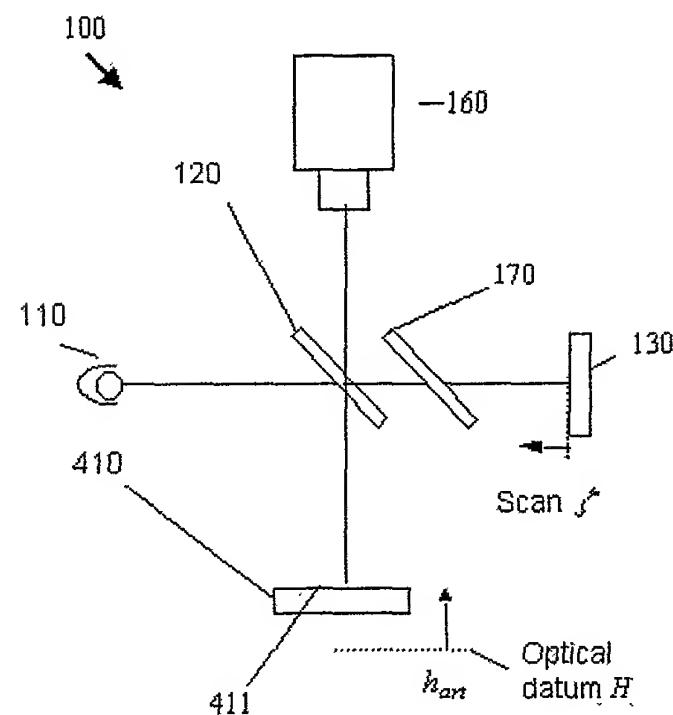


Figure 15